

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Gerd Hexels

Application No.: 09737529 Patent No: 6667255B2  
Filed: December 13, 2000 Examiner: Jennifer A. Boyd  
Group No: 1771

Assistant Commissioner for Patents and Trademarks  
P.O. Box 1450, Mail Stop 16, Alexandria, VA 22313-1450  
ATTENTION: Refund Section, Accounting Division, Office of Finance

**REQUEST FOR REFUND  
(IMPROPER CHARGE OF DEPOSIT ACCOUNT)**

**I. REFUND REQUEST**

This is a request for a refund, with respect to the debit to Deposit Account 23-0925, shown on the statement dated May 28, 2008 for the above-identified application.

A copy of the monthly statement, in which the error referred to occurs, accompanies this request.

A copy of the Electronic Acknowledgement Receipt, Request for Certificate of Correction of Patent for PTO Mistake, dated 8 April, 2008; copy of issued patent, column 1; Notice of References Cited; page 1 Preliminary Amendment, from 9 July 2001, accompanies this request.

A copy of the Certificate of Correction, accompanies this request.

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**CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. 1.8(a))**

I hereby certify that, on the date shown below, this correspondence is being:

**MAILING**

deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents and Trademarks, Washington, D.C. 20231.

**FACSIMILE**

XX transmitted by facsimile to the Patent and Trademark Office. **571-273-6500**

Date: 2 June 2008

\_\_\_\_\_  
Signature

Rhonda G. Rambo

(type or print name of person certifying)

(Request for Debit (Improper Credit of Deposit Account) page 1 of 2)

10 total pages  
11 pages 30 Sept 2008

10 pages resubmitted 6/11/2009  
No refund received.

**II. FEES CHARGED FOR WHICH REFUND IS REQUESTED**

	<b>AMOUNT OF REFUND REQUESTED</b>
Improper charge for Certificate of Correction	\$100.00
<b>TOTAL REFUND REQUESTED</b>	<b>\$100.00</b>

**III. EXPLANATION OF WHY CONTESTED CHARGE IS IN ERROR**

On April 8, 2008 we filed electronically a Request for Certificate of Correction of Patent for PTO Mistake in regards to Patent No: 6667255B2, granted on December 23, 2003. The errors listed on the Certificate of Correction form were apparently incurred through the fault of the PTO. The Certificate of Correction was requested due to the PTO errors; therefore, no fee is believed to be required. **Please credit Deposit Account No. 23-0925 with the amount of \$100.00.**

**IV. MANNER OF REFUND**

Please Credit Account No. 23-0925.

Date: 6-2-08



D. Brent Kenady  
Reg. No. 40,045  
Wells St. John P.S.  
601 West First Ave., Suite 1300  
Spokane, WA 99201-3828  
Tel. No.: (509) 624-4276  
Customer No.: 021567

05/23	5109	12125751	JD3-009	2311	\$105.00	\$17,445.00
05/23	5205	12125756	MI22-3730	1011	\$310.00	\$17,135.00
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05/23	5600	12125797	WO30-029	1011	\$310.00	\$14,985.00
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05/29	5325	1495582	UN1-115	7205	\$100.00	\$24,289.00
05/29	5326	1495582	UN1-115	7201	\$400.00	\$23,889.00
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05/29	6562	11130742	MI22-2897	1251	\$120.00	\$23,619.00
05/29	15129	10699160	NA20-002	1811	\$100.00	\$23,519.00
05/30	3647	12129305	MA105-021	1011	\$310.00	\$23,209.00
05/30	3648	12129305	MA105-021	1111	\$510.00	\$22,699.00
05/30	3649	12129305	MA105-021	1311	\$210.00	\$22,489.00

# Electronic Acknowledgement Receipt

EFS ID:	3118111
Application Number:	09737529
International Application Number:	
Confirmation Number:	9830
Title of Invention:	GARMENT, IN PARTICULAR UNDERGARMENT, FOR PERSONS IN MILITARY AND CIVIL DEFENSE SERVICES
First Named Inventor/Applicant Name:	Gerd Hexels
Customer Number:	21567
Filer:	Donald B. Kenady/Muriel Dunnigan
Filer Authorized By:	Donald B. Kenady
Attorney Docket Number:	LO24-001
Receipt Date:	08-APR-2008
Filing Date:	13-DEC-2000
Time Stamp:	11:51:05
Application Type:	Utility under 35 USC.111(a)

*Copy*

## Payment information:

Submitted with Payment	no
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## File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part/.zip	Pages (if appl.)
1	Request for Certificate of Correction	LO24-001_CO.C.pdf	70911 c81b1463e17f473c427a55a83f7bb7bd d96cc21d	no	3

## Warnings:

Information:
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. .... 6667255B2  
Patent Issue Date. .... December 23, 2003  
Application Serial No. .... 09737529  
Filing Date .... December 13, 2000  
Assignee .... Lorenz & Kollegen (Texplorer GmbH)  
Inventorship .... Hexels, Gerd  
Attorney's Docket No. .... LO24-001  
Title:.. Garment, In Particular Undergarment, for Persons in Military and Civil Defense Services

**REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT**  
**FOR PTO MISTAKE (37 C.F.R. 1.322(a))**

To: Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

ATTN: Decision and Certificate of Correction  
Branch of the Patent Issue Division

From: D. Brent Kenady (Tel. 509-624-4276; Fax 509-838-3424)  
Wells St. John P.S.  
601 W. First Avenue, Suite 1300  
Spokane, WA 99201-3828

**COPY**

Sir/Madam:

It is hereby requested that a Certificate of Correction be issued with respect to Patent No. 6667255B2, granted December 23, 2003, in accordance with the Certificate of Correction form attached hereto.

The errors listed on the Certificate of Correction form were apparently incurred through the fault of the PTO as will be disclosed by the records of files in the Office.

Attached hereto is Form PTO-1050 which is suitable for printing.

Since this Certificate of Correction is being requested due to PTO errors, it is believed that no fee is due. However, in the event that a fee is required for issuance of this Certificate of Correction, please charge the fee specified under 37 C.F.R. § 1.20(a) to Deposit Account No. 23-0925. Please credit Deposit Account No. 23-0925 with any overpayment of the above fee.

Respectfully submitted,

Dated: 4-7-08

By: D. Brent Kenady  
D. Brent Kenady  
Reg. No. 40045

**COPY**

UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 6667255B2

APPLICATION NO.: 09737529

DATED : December 23, 2003

INVENTOR(S) : Hexels, Gerd

It is certified that an error or errors appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Face Page – (56) **References Cited –**

U.S. PATENT DOCUMENTS – Please insert:

--6,309,987 B1 \* 10/2001 Srinivasan ..... 442/147--

Col 1 – Please insert before FIELD OF THE INVENTION –

--CROSS REFERENCE TO RELATED APPLICATION

This application relates to and claims priority to corresponding German Patent Application No. 299 22 034.6, which was filed on December 15, 1999, and which is incorporated by reference herein.--

Col. 1, line 53 – Please insert:

--when in appropriate combination with the two nonwovens,--

**Mailing Address of Sender:**

D. Brent Kenady  
Wells St. John P.S.  
601 West First Avenue, Suite 1300  
Spokane, WA 99201-3828

**COPY**

1

**GARMENT, IN PARTICULAR  
UNDERGARMENT, FOR PERSONS IN  
MILITARY AND CIVIL DEFENSE SERVICES**

**FIELD OF THE INVENTION**

The invention relates to a garment, in particular an undergarment, for persons in military and civil defense services.

**BACKGROUND**

Garments, in particular undergarments, which serve as protection against the cold, have as an essential component a polymer nonwoven, usually a polyester nonwoven. Very good insulation against effects of the weather is achieved with this material, in particular as protection against the cold. However, the disadvantage of the known garments is that they are highly flammable. This means that in military and civil defense services especially, where persons often work or are situated in the vicinity of open flames, such as for example fire department personnel attending a fire or soldiers and civil defense units at an open fire or camping by an open fire, there is a not inconsiderable risk to the persons provided with such easily combustible garments.

The present invention is therefore based on the object of providing a garment, in particular an undergarment, for persons in military and civil defense services which is not as easily combustible, while the good insulating properties are to be retained and, if need be, high wearing comfort is also provided.

This object is achieved according to the invention by the combination of features stated as, for example: a garment, in particular an undergarment, for persons in military and civil defense services, with a first nonwoven of natural fibers or synthetic fibers, a second nonwoven of natural or synthetic fibers and discrete flakes of expanded graphite as a flame-retardant material, which are applied to at least one of the surfaces of the two nonwovens.

It has been found in practice that the combination according to the invention of the two nonwovens with the discrete flakes of expanded graphite creates a significantly improved flame-retardant garment, even though very good insulating properties can be achieved by the two nonwovens—depending on the materials selected for them.

The use of expanded graphite as a flame-retardant material is known in principle from the construction sector as an insulating material, in the home textiles sector as carpeting and in the automobile and filter sector, but in these cases sheet-like formations were always provided as a backing material.

However, it has been found in a surprising way that, discrete flakes of expanded graphite are likewise suitable in clothing as well for providing a garment with greater resistance to catching fire, while at the same time the main property of the garment, that is protection against effects of the weather, in particular protection against the cold, is not impaired.

Polyester fibers may be used as a possible advantageous material for the first nonwoven, which is arranged for example on the outside. For the second nonwoven, which may form an inner nonwoven on the side facing the wearer, polyester may likewise be provided, or else polyamide.

A further significant increase in the wearing comfort is obtained if, in a very advantageous refinement of the invention, it is provided that a membrane permeable to water

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vapor and air is arranged between one of the two nonwovens and the flakes of expanded graphite.

It has been found that, in spite of the flakes of expanded graphite, breathability of the garment can be achieved if a membrane permeable to water vapor and air is arranged in the way specified. In this case, the connection to the neighboring materials is carried out—at least on one side—in an advantageous way as adhesive spot bonding, in order that good breathability or water-vapor and air permeability via the pores of the membrane is retained.

The flakes of expanded graphite can be applied to a nonwoven in various ways. In an advantageous refinement, the flakes are distributed in a layer of hot-melt adhesive, which before the heat treatment is in the form of granules.

15 The hot-melt adhesive is then sprinkled onto one of the two nonwovens, for example the second nonwoven, after which the entire item runs over a temperature-controlled section in a calender and is bonded together, i.e. laminated, under heat and pressure.

20 If designed as a three-layer laminate with a first nonwoven, the intermediate flakes of expanded graphite, which have been taken up in the layer of hot-melt adhesive, and the second nonwoven, the temperature control, and consequently the bonding to form the three-layer laminate, can be carried out in one operation.

If, to increase wearing comfort, a membrane is to be included in the laminated structure, this can take place in a very advantageous development of the invention by the second nonwoven being bonded to the membrane via the layer of hot-melt adhesive with the expanded graphite, while the membrane is bonded to the first nonwoven via spots of adhesive.

**BRIEF DESCRIPTION OF DRAWING**

35 An exemplary embodiment of the invention is described in principle below with reference to the drawing, FIG. 1, the single FIGURE representing a detail of part of a garment in cross section, on a greatly enlarged scale for reasons of clarity. The garment may be an undergarment, such as for example an undershirt, shorts or socks.

**DETAILED DESCRIPTION**

45 The garment comprises a first nonwoven 1 of polyester fibers, a membrane 2 lying thereunder, a layer of hot-melt adhesive 3, into which a multiplicity of discrete or individual flakes 4 of expanded graphite have been placed, and a second nonwoven 5, which lies on the side of the layer of hot-melt adhesive 3 facing away from the membrane 2.

50 The first nonwoven 1 is generally roughened and lies on the outside (however, it may also be produced flat and lie on the inside), while the second nonwoven 5 (possibly also roughened) is facing the wearer of the garment. It goes without saying that this structure is given only as an example. For reasons of comfort, materials which are known by the trade names Goretex and Sympatex may be used as the membrane 2. It goes without saying, however, that other membranes which ensure corresponding breathability are also possible within the scope of the invention.

55 If the garment is provided without a membrane 2, its production can take place in a simple way by the coating of hot-melt adhesive being sprinkled in solid form, for example in the form of powder or granules, onto one of the two nonwovens 1 or 5, the other nonwoven placed thereover and the unit bonded together under heat and pressure to form a three-layer structure.

**Notice of References Cited**

Application/Control No.  
09/737,529

Applicant(s)/Patent Under  
Reexamination  
HEXELS, GERD

Examiner  
Jennifer A Boyd

Art Unit  
1771

Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
✓	A	US-6,309,897 987	10-2001	Livengood, Richard H.	438/14
✓	B	US-RE29,630	05-1978	May, Robert Edward	427/393.3
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-		COPY	
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. .... 09/737,529  
Filing Date ..... December 13, 2000  
Inventor ..... Gerd Hexels  
Assignee ..... Texplorer GmbH  
Group Art Unit ..... 1772  
Examiner ..... Unknown  
Attorney's Docket No. ..... LO24-001  
Title: Garment, In Particular Undergarment, for Persons in Military and Civil Defense Services

PRELIMINARY AMENDMENT

To:  
Assistant Commissioner for Patents  
Washington, D.C. 20231

From: George G. Grigel (Tel. 509-624-4276; Fax 509-838-3424)  
Wells, St. John, Roberts, Gregory & Matkin P.S.  
601 W. First Avenue, Suite 1300  
Spokane, WA 99201-3828

AMENDMENTS

**COPY**

In the Specification

Please add the following material after the title at page 1:

--CROSS REFERENCE TO RELATED APPLICATION

This application relates to and claims priority to corresponding German Patent Application No. 299 22 034.6, which was filed on December 15, 1999, and which is incorporated by reference herein.--